



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/076,915	02/14/2002	Anna Lee Tonkovich	13007B	1868
7590	03/31/2005			EXAMINER
Frank S. Rosenberg 18 Echo Hill Lane Moraga, CA 94556				LEUNG, JENNIFER A
			ART UNIT	PAPER NUMBER
				1764

DATE MAILED: 03/31/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)
	10/076,915	TONKOVICH ET AL.
	Examiner	Art Unit
	Jennifer A. Leung	1764

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 1 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) Responsive to communication(s) filed on ____.
- 2a) This action is FINAL. 2b) This action is non-final.
- 3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) Claim(s) 1-63 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) Claim(s) ____ is/are allowed.
- 6) Claim(s) ____ is/are rejected.
- 7) Claim(s) ____ is/are objected to.
- 8) Claim(s) 1-63 are subject to restriction and/or election requirement.

Application Papers

- 9) The specification is objected to by the Examiner.
- 10) The drawing(s) filed on ____ is/are: a) accepted or b) objected to by the Examiner.
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
 Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 - a) All b) Some * c) None of:
 1. Certified copies of the priority documents have been received.
 2. Certified copies of the priority documents have been received in Application No. ____.
 3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. ____. |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date ____. | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| | 6) <input type="checkbox"/> Other: ____. |

DETAILED ACTION

Election/Restrictions

1. Restriction to one of the following inventions is required under 35 U.S.C. 121:
 - I. Claims 1-7, 10-12 and 27-31, drawn to a process of making a device, classified in class 228, subclass 190;
 - II. Claim 8, drawn to a device formed by the method of claim 1, classified in class 428, subclass 411.1;
 - III. Claims 9 and 13-26, drawn to a process of conducting a unit operation on a fluid with the device of claim 8, classified in class 137, subclass 1;
 - IV. Claims 32-36, drawn to a method of making a laminated device containing a component, classified in class 228, subclass 182;
 - V. Claim 37, drawn to a device formed by the method of claim 32, classified in class 366, subclass 341;
 - VI. Claims 38-46, drawn to a laminated device comprising a header and footer, classified in class 165, subclass 143;
 - VII. Claims 47 and 52-55, drawn to an apparatus for vaporizing water, classified in class 122, subclass 13.01;
 - VIII. Claim 48, drawn to a laminated device comprising at least one microchannel and at least one other chamber, classified in class 422, subclass 242;
 - IX. Claim 49, drawn to a method of conducting a process with a two phase mixture in a microchannel device of claim 47, classified in class 432, subclass 29;
 - X. Claims 50 and 51, drawn to a method of vaporizing water, classified in class 432,

subclass 13;

XI. Claims 56-60, 62 and 63, drawn to a laminated device comprising a first component and a second component, classified in class 165, subclass 164.

The inventions are distinct, each from the other because of the following reasons:

Inventions I and II are related as process of making and product made. The inventions are distinct if either or both of the following can be shown: (1) that the process as claimed can be used to make other and materially different product or (2) that the product as claimed can be made by another and materially different process (MPEP § 806.05(f)). In the instant case, the product as claimed can be made by another and materially different process, such as the process disclosed in U.S. Patent No. 4,806,295 to Trickett et al.

Inventions I and III or IV or V or VI or VII or VIII or IX or X or XI are each unrelated to the other. Inventions are unrelated if it can be shown that they are not disclosed as capable of use together and they have different modes of operation, different functions, or different effects (MPEP § 806.04, 808.01). In the instant case, the different inventions are not connected in design, operation, or effect and therefore the facts relied on for this conclusion are in essence the reasons for insisting upon restriction.

Inventions II and III are related as process and apparatus for its practice. The inventions are distinct if it can be shown that either: (1) the process as claimed can be practiced by another materially different apparatus or by hand, or (2) the apparatus as claimed can be used to practice another and materially different process. (MPEP § 806.05(e)). In this case, the process as claimed can be practiced by another materially different apparatus, such as the apparatus disclosed in U.S. Patent No. 5,534,328 to Ashmead et al.

Art Unit: 1764

Inventions II and IV or V or VI or VII or VIII or IX or X or XI are each unrelated to the other. Inventions are unrelated if it can be shown that they are not disclosed as capable of use together and they have different modes of operation, different functions, or different effects (MPEP § 806.04, 808.01). In the instant case, the different inventions are not connected in design, operation, or effect and therefore the facts relied on for this conclusion are in essence the reasons for insisting upon restriction.

Inventions III and IV or V or VI or VII or VIII or IX or X or XI are each unrelated to the other. Inventions are unrelated if it can be shown that they are not disclosed as capable of use together and they have different modes of operation, different functions, or different effects (MPEP § 806.04, 808.01). In the instant case, the different inventions are not connected in design, operation, or effect and therefore the facts relied on for this conclusion are in essence the reasons for insisting upon restriction.

Inventions IV and V are related as process of making and product made. The inventions are distinct if either or both of the following can be shown: (1) that the process as claimed can be used to make other and materially different product or (2) that the product as claimed can be made by another and materially different process (MPEP § 806.05(f)). In the instant case, the product as claimed can be made by another and materially different process, such as the process disclosed in U.S. Patent No. 4,806,295 to Trickett et al.

Inventions IV and VI or VII or VIII or IX or X or XI are each unrelated to the other. Inventions are unrelated if it can be shown that they are not disclosed as capable of use together and they have different modes of operation, different functions, or different effects (MPEP § 806.04, 808.01). In the instant case, the different inventions are not connected in design,

Art Unit: 1764

operation, or effect and therefore the facts relied on for this conclusion are in essence the reasons for insisting upon restriction.

Inventions V and VI or VII or VIII or IX or X or XI are each unrelated to the other.

Inventions are unrelated if it can be shown that they are not disclosed as capable of use together and they have different modes of operation, different functions, or different effects (MPEP § 806.04, 808.01). In the instant case, the different inventions are not connected in design, operation, or effect and therefore the facts relied on for this conclusion are in essence the reasons for insisting upon restriction.

Inventions VI and VII or VIII or IX or X or XI are each unrelated to the other.

Inventions are unrelated if it can be shown that they are not disclosed as capable of use together and they have different modes of operation, different functions, or different effects (MPEP § 806.04, 808.01). In the instant case, the different inventions are not connected in design, operation, or effect and therefore the facts relied on for this conclusion are in essence the reasons for insisting upon restriction.

Inventions VII and VIII or XI are each unrelated to the other. Inventions are unrelated if it can be shown that they are not disclosed as capable of use together and they have different modes of operation, different functions, or different effects (MPEP § 806.04, 808.01). In the instant case, the different inventions are not connected in design, operation, or effect and therefore the facts relied on for this conclusion are in essence the reasons for insisting upon restriction.

Inventions VII and IX are related as process and apparatus for its practice. The inventions are distinct if it can be shown that either: (1) the process as claimed can be practiced

by another materially different apparatus or by hand, or (2) the apparatus as claimed can be used to practice another and materially different process. (MPEP § 806.05(e)). In this case, the process of as claimed can be practiced by another materially different apparatus, such as the apparatus disclosed in U.S. Patent No. 5,534,328 to Ashmead et al.

Inventions VII and X are related as process and apparatus for its practice. The inventions are distinct if it can be shown that either: (1) the process as claimed can be practiced by another materially different apparatus or by hand, or (2) the apparatus as claimed can be used to practice another and materially different process. (MPEP § 806.05(e)). In this case, the process of as claimed can be practiced by another materially different apparatus, such as the apparatus disclosed in U.S. Patent No. 5,534,328 to Ashmead et al.

Inventions VIII and IX or X or XI are each unrelated to the other. Inventions are unrelated if it can be shown that they are not disclosed as capable of use together and they have different modes of operation, different functions, or different effects (MPEP § 806.04, 808.01). In the instant case, the different inventions are not connected in design, operation, or effect and therefore the facts relied on for this conclusion are in essence the reasons for insisting upon restriction.

Inventions IX and X or XI are each unrelated to the other. Inventions are unrelated if it can be shown that they are not disclosed as capable of use together and they have different modes of operation, different functions, or different effects (MPEP §806.04, 808.01). In the instant case, the different inventions are not connected in design, operation, or effect and therefore the facts relied on for this conclusion are in essence the reasons for insisting upon restriction.

Inventions X and XI are each unrelated to the other. Inventions are unrelated if it can be shown that they are not disclosed as capable of use together and they have different modes of operation, different functions, or different effects (MPEP § 806.04, 808.01). In the instant case, the different inventions are not connected in design, operation, or effect and therefore the facts relied on for this conclusion are in essence the reasons for insisting upon restriction.

2. Because these inventions are distinct for the reasons given above and have acquired a separate status in the art because of their recognized divergent subject matter, their different classification, and the individual searches required for each of Groups I-XI not being required for the other, restriction for examination purposes as indicated is proper.

3. Applicant is advised that the reply to this requirement to be complete must include an election of the invention to be examined even though the requirement be traversed (37 CFR 1.143).

4. This application contains claims directed to the following patentably distinct species of the claimed invention:

If Applicant elects Group I, claims 1-7, 10-12 and 27-31, Applicant is required under 35 U.S.C. 121 to elect a single disclosed species for prosecution on the merits to which the claims shall be restricted if no generic claim is finally held to be allowable. Currently, claims 1 and 10 are generic.

Species IA. shims comprising circle apertures.

Species IB. shims comprising triangle apertures.

Species IC. shims comprising wave apertures.

Species ID. shims comprising oval apertures.

Art Unit: 1764

- Species IE. shims comprising irregular shape apertures.
- Species IF. shims comprising rectangle apertures with rounded corners.
- Species IG. shims comprising square apertures with rounded corners.
- Species IH. shims comprising triangle apertures with rounded corners.
- Species IJ. shims comprising apertures defined by borders populated by edge features.

If Applicant elects Group III, claims 9 and 13-26, Applicant is required under 35 U.S.C. 121 to elect a single disclosed species for prosecution on the merits to which the claims shall be restricted if no generic claim is finally held to be allowable. Currently, claim 13 is generic.

Species IIIA. the unit operation of vaporization.

Species IIIB. the unit operation of compression.

Species IIIC. the unit operation of chemical separation.

Species IIID. the unit operation of distillation.

Species IIIE. the unit operation of reaction.

Species IIIF. the unit operation of condensation.

Applicant is advised that a reply to this requirement must include an identification of the species that is elected consonant with this requirement, and a listing of all claims readable thereon, including any claims subsequently added. An argument that a claim is allowable or that all claims are generic is considered nonresponsive unless accompanied by an election.

Upon the allowance of a generic claim, applicant will be entitled to consideration of claims to additional species which are written in dependent form or otherwise include all the limitations of an allowed generic claim as provided by 37 CFR 1.141. If claims are added after election, applicant must indicate which are readable upon the elected species. MPEP §809.02(a).

Art Unit: 1764

Should applicant traverse on the ground that the species are not patentably distinct, applicant should submit evidence or identify such evidence now of record showing the species to be obvious variants or clearly admit on the record that this is the case. In either instance, if the examiner finds one of the inventions unpatentable over the prior art, the evidence or admission may be used in a rejection under 35 U.S.C. 103(a) of the other invention.

5. Applicant is reminded that upon the cancellation of claims to a non-elected invention, the inventorship must be amended in compliance with 37 CFR 1.48(b) if one or more of the currently named inventors is no longer an inventor of at least one claim remaining in the application. Any amendment of inventorship must be accompanied by a request under 37 CFR 1.48(b) and by the fee required under 37 CFR 1.17(i).

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jennifer A. Leung whose telephone number is (571) 272-1449. The examiner can normally be reached on 8:30 am - 5:30 pm M-F, every other Friday off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Glenn A. Calderola can be reached on (571) 272-1444. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Jennifer A. Leung
March 7, 2005 *jal*

Hien Tran
HIEN TRAN
PRIMARY EXAMINER